

TM-02-94

London Police Automated Charge Sheet System

By: J. Hill and A. Rosenberg,
PRAEDA Management and Waterloo Regional Police Service

TECHNICAL MEMORANDUM

Submitted by
Canadian Police Research Centre

June, 1994

**NOTE: Further information
about this report can be
obtained by calling the
CPRC information number
(613) 998-6343**

EXECUTIVE SUMMARY

The London Police Service in London, Ontario, developed an in-house system to produce court documents. The system was prepared specifically and solely for the London Police Service.

Praeda Management Systems of (Praeda) London, Ontario, proposed a computerized court document preparation system to the National Research Council of Canada that is modifiable to the needs of any police service. The Industrial Research Assistance Program of the National Research Council of Canada, through the Canadian Police Research Centre, funded the technology transfer of the London In-Charge System to Praeda.

A series of meetings defined the functional design specifications. Staff at Praeda Management Systems then selected the hardware, and operating system. The Waterloo Regional Police Service assisted Praeda with the work flow, information entry and types of documents. Upon completion of a series of test cases at Praeda, the system was installed for operational evaluation at Waterloo Regional Police Service Headquarters. The staff were trained in the system's use. Several cases were selected at random and the system produced the required court documents. The documents were accepted by the Waterloo region judicial system.

The In-Charge System produced all the documentation required by the Courts, the Crown Attorney and the Police for a criminal charge to be brought before the courts. The system, as tested, is well designed, efficient, and reliable. The single user, stand alone system consists of a single workstation, and printer occupied little space.

The In-Charge is well suited to a small to medium-sized police service operating out of a single facility and should be cost effective. Large services would require multiple workstations possibly networked to different facilities dependent upon their organizational structure.

For further information please contact:

John Arnold, Chief Scientist at (613) 993-3737.

RÉSUMÉ

Le Service de la police de London (Ontario) a développé un système maison qui permet de produire des documents judiciaires. Le système a été conçu exclusivement à l'intention de ce service de police.

La compagnie Praeda Management Systems (Praeda) de London, en Ontario, a proposé au Conseil national de recherches du Canada un système informatisé de préparation de documents judiciaires qui peut être adapté aux besoins de n'importe quel service de police. Par l'entremise du Centre canadien de recherches policières, le Programme d'aide à la recherche industrielle du Conseil national de recherches a financé le transfert technologique à la compagnie Praeda du système *In Charge* du Service de la police de London.

Il a fallu plusieurs rencontres pour définir la conception fonctionnelle du système, et des employés de la compagnie Praeda ont ensuite choisi le matériel et le système d'exploitation. Le Service de police de la région de Waterloo a aidé Praeda à s'initier au déroulement des opérations, à la saisie d'information ainsi qu'au traitement de divers types de documents. Après une série d'essais à la compagnie, le système a été installé aux quartiers généraux de la police de Waterloo pour en faire l'évaluation fonctionnelle. Les employés ont reçu une formation sur l'utilisation du système. Plusieurs cas ont été choisis au hasard et le système a produit les documents judiciaires demandés. Les documents ont été approuvés par le système judiciaire de la région de Waterloo.

Le système *In Charge* a produit tous les documents demandés par la Cour, le procureur de la Couronne et la police relativement à une affaire criminelle devant être portée devant les tribunaux. Au cours des essais, le système s'est avéré efficace, fiable et bien conçu. Il s'agit d'un système monousager autonome constitué d'un seul poste de travail et dont l'imprimante occupe peu d'espace.

Le système est bien adapté aux besoins d'un service de police de petites ou moyennes dimensions logé dans un seul immeuble, et devrait s'avérer rentable. Un service de grandes dimensions nécessiterait plusieurs postes de travail qu'il faudrait possiblement connecter à diverses installations, selon la structure de l'organisation.

Pour plus de renseignements, veuillez communiquer avec John Arnold, expert scientifique en chef, au (613) 993-3737.

Evaluation Report Praeda InCharge System

By Staff Sergeant A. C. Rosenberg
Waterloo Regional Police Service
23 October 1994

OVERVIEW

The London Police Service, London Ontario developed an in-house system to produce court documents. The system was prepared specifically and solely for London Police Service.

Praeda Management System of London Ontario proposed a computerized court document preparation system to the National Research Council of Canada that is modifiable to the needs of any police service. Mr. John Arnold, Chief Scientist at the Canada Police Research Centre of the National Research Council, agreed to fund the project. The Waterloo Regional Police Service was asked to participate, test and evaluate the system.

The project steering team consisted of Mr. Arnold, Mr. James Hill, President of Praeda Management Systems and Staff Sergeant A. Rosenberg, Waterloo Regional Police Service. A series of meetings defined the functional design specifications. Staff at Praeda Management Systems then selected the hardware, and operating system.

The Waterloo Regional Police Service assisted Praeda Management Systems with the work flow, information entry and types of documents. Upon completion of a series of tests cases at Praeda Management Systems offices the system was installed at Waterloo Regional Police Service Headquarters for evaluation and live testing.

Operational staff at Waterloo Regional Police Service were trained in the use of the system. A variety of cases were selected at random and the system to produce the required documents. The documents were then placed into the Judicial System and were accepted.

SYSTEM DESIGN

Several key components were defined during the system design and as such they form the basis of this evaluation report.

- 1) The documents must be approved for use by the Ministry of the Solicitor-General
- 2) The system must be able to produce documents automatically, based on the information entered
- 3) The system must not require a technical person for general use and must be easy to use
- 4) The system must maintain a record of each case

- 5) The system must prepare documents required by the Police Service and the Crown Attorney
- 6) The system documents must be accepted by the local courts
- 7) The system should reduce the time and work required to produce the documents

EVALUATION

This evaluation will address the six issues from the system design. To be successful the system must satisfy each issue.

A) ***The documents must be approved for use by the Ministry of the Solicitor-Genera/***

Praeda Management Systems prepared a set of all documents to be produced by the system and submitted them for approval. All were accepted. Praeda Management System selected a duplexing Postscript laser printer to produce the documents.

The system meets this requirement.

B) ***The system must produce documents automatically, based on the information entered***

The system, based on the information entered, name, age, charge, etc. produces all of the required court, police and Crown documents. During the design it was determined that the greatest number of documents was produced by a Young Offender impaired driver, held for a bail hearing. The system produced all of the required reports, including,

- the information
- the notice to parent
- the notice to introduce documentary evidence
- the twelve hour suspension notice
- the breath technician's report
- the bail hearing report
- the witness list
- charge sheets used by the Crown and police

The system meets this requirement.

C) *The system must not require a technical person for general use and must be easy to use*

The staff selected to do the actual functional testing at the Waterloo Regional Police facility were clerical staff with little or no technical background. The staff were familiar with data entry into a Records Management System. The staff were able to enter the required data and print the documents with a minimum of training.

The actual method of data entry is best described as “fill in the blanks.” The system has predefined many areas with a list of acceptable values, including the charge wordings. This makes entry by even non-clerical staff easy with a short learning curve.

The only contact with technical staff at Praeda Management Systems, outside of training, was for clarification on the use of some of the functions. This was required as no formal detailed documentation was available.

The system meets this requirement.

D) *The system must maintain a record of each case*

The system assigns a unique case number to each charge entered. The system saves this information in a “book.” The information can be retrieved and amended as required and new or additional documents produced.

The system meets this requirement.

E) *The system must prepare documents required by the Police Service and the Crown Attorney*

The system produces documents not entered into the Judicial system but are required by both police and the Crown Attorney. Each charge produces copies of a Charge sheet listing the basic information for the person, charge and a brief description of the circumstances surrounding the charge. The system also produces the Bail Hearing report, and witness lists.

The original set of documents was a copy of those used by the London Police Service and was easily modified to suit the needs of the Waterloo Regional Police Service and local Crown Attorneys.

The system meets this requirement.

F) ***The system documents must be accepted by the local courts***

The test cases prepared at the Waterloo Regional Police Service were entered into the court system and were accepted.

The only problem encountered was attributed to the method of filing documents in the local court office. A small cosmetic change alleviated the concern.

The system meets this requirement.

G) ***The system should reduce the time and work required to produce the documents***

This is the most difficult area to evaluate and requires some qualification. The evaluation is based on the premise that it would be used in a single user setting, that present method of forms production is with typewriters or basic wordprocessors filling the areas on preprinted forms.

Based on the aforementioned premise the system allows for a single point of entry. The information must only be entered once to produce all required reports. The use of preprinted forms is eliminated. Entering of the same information on each of the different forms is eliminated. The system will reduce the amount of time and resources required to produce the documents. Actual savings are dependent upon the system cost versus the current and projected resources cost to produce the documents.

It is impossible to determine how cost effective the system may be for several reasons. First, the savings that can be attributed to such a system are dependent upon the number of charges laid, the greater the number of charges the greater the potential savings. The cost of computer hardware continues to decline and may reduce the payback period. Enhancements or changes required by an individual Police Service or Judicial Jurisdiction may change the cost and by that increase the payback period.

To determine the potential savings for such a system find the following;

CURRENT COSTS

- a) the current cost to produce a single set of documents
(will vary for each Service dependent upon who produces the documents, their pay scale the equipment used and the method used to produce the documents)

multiply by

- b) the number of charges processed in a year

POTENTIAL COSTS

- a) the proposed cost to produce a single set of documents
(will vary for each Service dependent upon who produces the documents, and their pay scale estimated to be 25 - 50% of current cost)

multiply by

- b) the number of charges processed in a year

SYSTEM COST

This cost is dependent upon the final system design for a Service. Included in this cost should be maintenance for both the hardware and the software if the calculations are extrapolated beyond the warranty period.

SAVINGS

CURRENT COSTS minus POTENTIAL COSTS = POTENTIAL SAVINGS
then
POTENTIAL SAVINGS minus SYSTEM COST = SAVINGS

The current costs and potential costs will rise with increases in pay and the number of charges from year to year. The potential and actual savings will also rise. A system of this nature has a life expectancy of at least five years.

Based on the evaluation period, and consultation with the London Police Service that has used a similar system, the system will reduce the time required to produce the documents from 50 - 75% of the current time. Based on estimated pricing from Praeda Management Systems a medium sized Service can expect a quick payback period.

CONCLUSION

Praeda Management Systems' proposal was to design a system to produce all the documentation required by the Courts, the Crown Attorney and the Police for a criminal charge to be brought before the courts. The system tested by the Waterloo Regional Police Service performs as proposed.

The system, as tested, is well designed, efficient, and reliable. The test system can be described as a single user, stand alone system. The test system configuration consisting of a single workstation, and printer occupied little space.

The single user configuration tested, is well suited to a small to medium sized police service operating out of a single facility and should be cost effective. Larger services would require multiple workstations possibly networked to different facilities dependent upon their organizational structure.

RECOMMENDED ENHANCEMENTS

- 1) A customised interface to established records management systems could eliminate double keystroking by extracting the required information from the systems database.
- 2) A version of the system designed to run on a personal computer network would allow use of the workstation for other than court document preparation.

To: Dan Lynch, NRC/IRAP, London.
Copy: John Arnold, NRC/CPRC, Ottawa
Project: *inCHARGE* Informations Technology
Computer Assisted Criminal Code of Canada Charges
Company: Praeda Management Systems Inc.
London, Ontario.
Client # 026262
Origin: National Research Council - Canadian Police Research Centre
Mandate: To develop a commercial version of the criminal charge application, originally created by London Police Force, for the general police community.
Target Market: Province of Ontario.
Schedule: August 1, 1993 to March 31, 1994, amended to April 30, 1994 per Revision 1, IRAP Element RDA-1, dated Feb 21, 1994.

Introductory Remarks

The criminal charge system, developed in accordance with the terms and conditions of IRAP Project # 23256U, is copyright protected under the name *inCHARGE Informations Technology* and all commercial activity relating to the distribution and support of the product will be conducted using this product name.

inCHARGE consists of two distinct control elements. The first is the application software programs that manage the creation, maintenance and printing of criminal code charges. The second element is a criminal code wording file that includes more than 930 Criminal Code, Food and Drug Act, and Narcotics Control Act charges. The programs were originally defined and written by London Police Force. The criminal code wordings have been interpreted and prepared by Mr. David Amtfield, Q.C. and Sgt. William Johnson under agreement with Praeda. All business agreements, copyright declarations, and rights to represent the executable software and criminal code wordings are in the final stages of completion.

The project has resulted in a significantly enhanced product that successfully melds a specialized and complex legal process with computer technology. Preliminary reaction suggests the operational benefits to the police community will be numerous. From the outset, it has been understood the system would promote the timely and accurate preparation of criminal charges. Consideration of several other factors has revealed that the system will also satisfy aspects of the justice system beyond the requirements of the Police Services Act. By eradicating the slow and often incorrect preparation of charges and providing a full suite of charge documents, *inCHARGE* satisfies the right to trial within a reasonable time period and the right to access criminal charge information.

The following report will review technical results, actual and expected benefits, and future technical activity. The report also identifies and discusses various problems encountered during the development term and offers some recommendations for future projects of a similar nature. A summary of the savings realized by London Police Force, plus an estimate of annual savings to the Province of Ontario are provided in Appendix "A".

Technical Results

Computer generated statutory forms and criminal charges originally produced by London Police Force were subject to a mandatory review and approval by the Middlesex County Courts and the office of Ontario's Attorney General. Approval demanded strict compliance with the format of statutory forms issued by the Attorney General of Canada. The statutory forms produced by *inCHARGE* are identical in format to the approved forms.

Reliable generation of printed charges can be ensured only in a controlled production environment. Although not understood at the outset of the project, it became readily apparent the ultimate challenge was to develop a commercial version of the application that blended the unyielding demand for consistent performance and production with a professional, all encompassing, support program at a moderate costs. This proved to be no small challenge. To assure the integration of physical technology, development strategies, and actual application requirements would result in a functional and affordable commercial product, Praeda had to define hardware standards and select hardware vendors before development commenced. In addition to hardware selections, various software development tools that would best compliment the application had to be identified and reviewed. While pursuing hardware and development software issues, Praeda staff had to grapple with the esoteric requirements of the Canadian justice system, as it pertains to the creation of criminal code charges in the Province of Ontario.

Technical development issues are summarized below.

Hardware: Few hardware or operating system standards appear to be defined within the Ontario Police community at this time. As a result, Praeda has defined four (4), task dedicated, hardware configurations to accommodate criminal charge processing for one, four, eight and sixteen user servers. All systems include point-to-point communication software to augment remote support. Multi-user systems include network controllers and standard, open network protocol software to facilitate inter-system connectivity and data interchange at a future date.

Printer: A multi-tray, duplexing laser printer is required. The printer originally used by London Police Force had been replaced by a model priced at more than \$9,000.00 when the project was approved. After a comprehensive evaluation of commercial printers, the IBM Lexmark 4039 laser printer series was selected as the standard printer for the project on the basis of performance, service and cost.

Server: Intel architecture from DIGITAL. Memory, disk drives, tape drive, and uninterruptible power supply are specified for each configuration. DEC was selected for several reasons:

- comprehensive, on-site hardware service throughout the Province
- history of building high quality, commercial grade equipment
- servers assembled in Canada (Kanata)
- competitively priced in the commercial, desktop server market

Software: The original application was written in Informix' 4GL, relational database development software. *inCHARGE* was redeveloped in the newest release of the 4GL software and will be distributed in compiled, object code form resulting in improved speed of performance and significantly lower licence costs to the user.

General Conditions: Several technical enhancements and additions have been completed.

- Input screens and query zooms have been rewritten to provide point and select access to pertinent data tables, minimizing entry errors.
- Data management routines and processing logic have been rewritten to achieve faster and more reliable performance.
- Print routines and report query options have been redeveloped to improve reporting procedures.
- Original input limitations have been removed to simplify the entry of complete charge information.
- New charge wording entry routines have been added to substantially reduce the amount of typing required to prepare a charge.
- A text manager with word processing features has been added to allow users to prepare, and spell check, all witness statements and other free form text associated with a charge. Several weeks of Praeda's time was required to research, test and select a functional, reasonably priced text manager.

inCHARGE includes all Criminal Code of Canada wordings, plus significant performance and production improvements in all entry, processing and printing functions. The mandate of the project was to produce a commercial version of the criminal charge system used by London Police Force. In reality, the new version includes many additional features that were not part of the original application. We are confident that both the NRC and the Ontario Police community will be satisfied with the results.

Actual Benefits

Operations:

- Savings and Efficiency: Drastic reduction of time and/or wages for officer and civilian personnel at each site. Officers will spend more shift time in public patrol and investigation by reducing the amount of time spent in the office preparing charges, and in court representing charges.
- Control. Controlled, consistent production of criminal code charges and court documents, minimizing incorrect interpretation of charge wordings, data entry errors, omissions and oversights, redundant input of common data, and court rejection of incorrectly prepared charges. Backlogs will be eliminated. Charges can be prepared and printed on demand. Charges can also be updated over the full period of investigation and printed when required.

Acquisition Costs:

- Ease of Acquisition. Complete, turnkey supply, eliminating problems relating to performance warranties, on-site support, and multi-vendor acquisition. Procurement options will include acquisition as a capital expense purchase, or long term, fixed monthly rates, as an operating expense.
- Low Cost Technology. A turnkey solution, providing a specialized, police application can be procured at a small fraction of the development cost with the knowledge that ongoing usage costs are minimal. Further, there is no need to hire specially trained technicians to maintain or administer the system.

Other Costs:

- 0 Minimal Operating Costs. On-going direct costs are limited to bonded paper and printer toner, as consumed, and long distance modem support charges.

Expected Benefits

- An Up to Date Criminal Charge System: Corrections, enhancements and minor additions to the existing application, plus corrections, amendments, and minor revisions to the Criminal Code of Canada will be provided at no charge to each supported site, as required.
- Input and Control of Future Upgrades and New Applications: Regional user group representation to define revisions and additions, plus development of new applications related to *inCHARGE*. Group representatives will define the features and functions of on-going development at an annual conference, ensuring pertinent user needs are addressed and incorporated in future releases.

Other Benefits To Contemplate

- Provincial Savings: The Province of Ontario could save several \$million annually in printing and paper costs if the system was used by all police services in the Province.
- Consistency: The use of *inCHARGE* to prepare consistently worded and formatted criminal charges throughout Ontario would promote savings as a result of the efficiencies that naturally accompany the standardization of any multifarious process.

Future Technical Activity

No new technical development is planned for the application in the immediate future. The needs and demands of the Ontario Police community, however, could force the *inCHARGE* system to embrace new technology. Future changes to the Criminal Code of Canada or the Police Services Act could have a similar affect. In either case, we can only acknowledge there may be a need to readdress the technical issues at a later date.

Technology that Praeda will evaluate for future releases includes, but is not limited to:

- programming utilities that produce post script output and provide rapid adaptation of changes to existing statutory forms, or quick addition of new forms.
- 4GL development tools that will run on DOS and UNIX operating systems; support character and graphical user interfaces; access multiple database systems; and address multiple network protocols
- Canadian Police connectivity standards to determine the feasibility of incorporating communications into the system as an optional link to federal records. It may prove there is no merit in this consideration.

Preliminary discussions have been conducted with London Police and Waterloo Regional Police regarding data transfer of charge information to the central records management systems as a complimentary function. A technical evaluation of host file definitions, data translation parameters, and communication/network protocols will be required before development work can begin.

Research Bearing Upon the Outcome of the Project

Research for the project can be separated into two areas. The first is application. The second is technology. The time taken to study, and grasp the procedural requirements of the project surpassed the time expended in analysis of the technology used to complete the redevelopment of the application.

Application: Praeda assumed the original criminal charge system, created by London Police Force, would be a generic representation of the process, and that our task would be limited to technical development only. This was not the case. While Praeda's initial lack of knowledge regarding the Criminal Code of Canada, the Police Services Act, and the requirements of criminal charge creation is understandable, it severely hampered the normal process of software development. Although we have achieved a sound understanding of the stated requirements relating to the creation of criminal charges, we have little knowledge of the manner in which the process is completed at different police services. After ten months of working closely with London Police Force and Waterloo Regional Police on the project, we are still encountering discrepancies in stated needs between the sites. If this condition is encountered at each subsequent site, the sale of a standard system may be difficult.

Technology: The application development platform was inherited with the project. Informix relational database development products were used to create the original application and have been used to produce the commercial version. Evaluation of a newer release of the development tools, operating system software, and auxiliary software products, used to augment charge creation and charge printing, was completed. Hardware evaluations, measuring server performance, and printer functionality, were also completed.

Cost and Performance: Praeda has had telephone conversations with several sites throughout the Province. In all cases, the sites expressed considerable interest in the application, and considerable concern about the cost of acquisition. As a consequence, all technology research has been conducted to evaluate best performance at best price. In some instances, products that offered good functionality and performance were rejected because the cost per site was prohibitive.

Recommendations

Future projects of this nature would be advantaged by a change in development procedure. Using the *inCHARGE* project as an example, we submit the following recommendations for change:

Actual Format:

Praeda prepared a detailed application to produce a commercial version of the criminal charge sheet system developed by London Police Force (LPF). An IRAP development grant was awarded. With the full co-operation of LPF, Praeda set about to superimpose commercial software disciplines and requirements by rewriting the application. In that regard, all went well. Problems were encountered because we assumed the original software, as received from the LP, was the final definition of the requirements. While the original version addressed most criminal charge issues, it also automated many local practices and functions that may apply only to London's operation. A considerable amount of unplanned development time has been spent developing software features that accommodate both London's and Waterloo's manner of operation. The issues we are aware of have been

resolved to everyone's satisfaction, at a direct cost to Praeda.

Proposed Format:

Praeda would submit a preliminary application, identifying a two phase development schedule. Phase 1 would declare firm prices and deadlines. Phase 2 would be preliminary budget.

Phase 1 would be dedicated to the definition of the application. LPF, plus two other sites appointed by the NRC, would participate. At the start of Phase 1, the two appointed sites and Praeda would use the original software in a controlled test for a 30 day period. At the end of the test period, a detailed critique from each test site would be used to finalize a statement of development requirements that embraced both the software and hardware demands. A final price for Phase 2 would then be completed and submitted to IRAP for approval.

Phase 2 would entail all technology research and application development. An integral part of Phase 2 would be regularly scheduled development meetings, and final proof of concept testing of the commercial version by the users identified in Phase 1.

Although a two phase assistance program would be more difficult to administer and more costly to complete, we contend the final product would better represent the global needs and requirements of the user community.

APPENDIX A - Savings Expected From the Use of *inCHARGE*

London Police Force:

The following is reproduced in part from correspondence received from Mr. Eldon Amoroso, Director of Information and Technology, London Police Force, dated April 20, 1994.

1. *Direct Savings: Back in 1990, we told the Board that we would save two people at the current rate of charges. This continues to be completely true. The cost of this at current rates is \$74,341 (2 computer terminal operators X annual salary of \$3 7,263 + fringe benefits of 79%). Also worth mentioning is that we could absorb an increase in charges from our current 14,000 charges up to 19,000 without increasing staff in the area that does charge sheets (a 35% increase in charges). The ability to distribute data entry of charges to the officers is also working well in our Criminal Investigation Division.*
2. *Bail Hearings Officers: Implementing a Bail Hearings Officer plan was much easier due to the Charge Sheet system. The Bail Hearings report is done on-time, and is subsequently available at Court Services (Field Support Branch). Although not directly responsible for the \$100,000 annual savings, the implementation was very easy due to technological assistance.*
3. *Up Loading of Informations to the Courts: We must not overlook this phase as an absolute money saver for the Province. This should be mentioned. It is not mere wishful thinking, but is completely possible since we have the informations electronically stored today. This could be forwarded to the Courts, along with the signed paper informations from the computer, and it would save data entry effort for Court Administration wherever the system was installed. Think of the savings across the Province, knowing the number of charges that are produced. This directly related to people. In return, we would expect electronic transfer of dispositions and charge dates, however, the bulk of the benefit goes directly to the Courts. We should stress that our informations are stored electronically today, and would be available for a pilot study."*

Data provided by London Police in February 1993 stated the system had also reduced officer overtime costs, representing a total reduction of 3.75 personnel. Applying the costs identified above, LPF realizes a total savings of \$139,389 in annual wages using *inCHARGE* to produce criminal charges.

Attorney General - Preprinted Forms:

Praeda has estimated the Province of Ontario could significantly reduce the Attorney General's annual budget for preprinted forms if the system was used throughout Ontario. Provincial savings have been calculated by extrapolating 1993 data provided by London Police Force. The number of charges for a five year period commencing 1995, increase at 10% per annum as indicated in the 1992 National Crime Statistics Catalogue 85-205. Inflation is factored at 2.0% per annum for all cost calculations. Other factors will be discussed upon request.

CHARGE INFORMATION	1995	1996	1997	1998	1999	TOTAL
Total Criminal Charges	1,610,163	1,771,179	1,948,297	2,143,127	2,357,440	9,830,206
Total paper, manual system	\$4,100,449	\$4,182,458	\$4,266,107	\$4,351,429	\$4,438,458	\$21,338,900
Total paper & toner cost, <i>inCHARGE</i>	\$430,965	\$439,584	\$448,376	\$457,344	\$466,490	\$2,242,759
Savings	\$3,669,484	\$3,742,873	\$3,817,731	\$3,894,085	\$3,971,967	\$19,096,141

Two considerations are excluded. 1) The cost of software licence rights and annual support charges are not considered. If included, such costs would reduce total savings to approximately \$10,000,000. 2) Praeda cannot foresee what additional savings the Attorney General's office may realize if the task of purchasing, receiving, warehousing, order taking, and shipping of pre-printed forms was eliminated.

June, 1994
Volume 2, Issue 1

We Make Mistakes . . .

Two mistakes appeared in the sample Charge Sheet printed in the April Newsletter. Waterloo Regional Police Service is shown as the charge site for an offence committed in London. In addition, some Charge Summary text was omitted at the right margin in the duplication process. A corrected copy of the Charge Sheet has been included with this Issue.

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Ongoing Changes

Three significant changes have been introduced since April.

Hardware: IBM has released an enhanced version of their Lexmark printers. The Lexmark 12R Plus laser printer has 12 page per minute output, at 600 dpi resolution, and several new or enhanced settings and controls. The 12R Plus will be the standard printer for *inCHARGE* forms.

Software: Finline's text management software has replaced the SlickEDIT product. Finline offers better functionality and ease of use at a lower cost.

Output Forms: "Show Cause" reports are now called "Bail Hearing" reports, and include more charge information, as requested by London Police Force.

Testing

Testing of *inCHARGE* at Waterloo Regional Police was deferred for one month. Forms testing/approval has now been completed at Headquarters and production testing at the Kitchener operating division is scheduled to start within days of this writing. Although we cannot provide a final report on the testing results for the OACP Conference, preliminary indications will be available. A copy of the final results will be printed and mailed within 30 days of the end of test.

praeda

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Savings

It was understood from the outset of the project that the computer assisted criminal charge system would provide direct savings to all users. The following is reproduced in part from correspondence received from Mr. Eldon Amoroso, Director of Information and Technology, London Police Force (LPF), dated April 20, 1994.

1. *Direct Savings: ... save two people at the current rate q/charges. This continues to be completely true. The cost of this at current rates is \$74,341 (2 computer terminal operators X annual salary of \$31,263 + fringe benefits of 19%). Also worth mentioning is that we could absorb an increase in charges from our current 14,000 charges up to 19,000 without increasing staff in the area that does charge sheets (a 35% increase in charges). The ability to distribute data entry of charges to the officers is also working well in our Criminal Investigation Division.*
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3. *Up Loading of informations to the Courts We must not overlook this phase as an absolute money saver **for** the Province, This should be mentioned. It is not mere wishful thinking, but is complete + possible since we have the informations electronically stored today. This could be forwarded to the Courts, along with the signed paper informations from the computer, and it would save data entry effort for Court Administration wherever the system was installed. Think of the savings across the Province, knowing the number q/charges that are produced. This direct & relates to people. In return, we would expect electronic transfer of dispositions and charge dates, however, the bulk of the benefit goes directly to the Courts. We should stress that our informations are stored electronically today, and would be available for a pilot study. "*

NOTE: LPF statistics indicate the number of criminal charges will increase to 19,000 per annum by 1997. Creation of 19,000 charges using a traditional, type written procedure would require 5.75 full time personnel to complete. Applying the costs identified above, LPF will realize annual payroll savings in excess of \$140,000 by 1997 using *inCHARGE* to produce criminal charges.

OACP Conference, June 26-30

inCHARGE will be on exhibit at the Conference from Monday June 27 to Wednesday June 29. Praeda's booth will include a 5 minute self running demonstration and samples of printed forms and output. A fully configured production server and printer will also be set up to conduct hands on demonstrations.

Please stop at BOOTH # 64
for a personal demonstration of *inCHARGE*.

LONDON POLICE FORCE – CHARGE SHEET POLICE COPY

ARREST - PTA

(Occurrence No.): 94-1678

ACCUSED

(Surname Given1 Given2) (Alias)
DOE, John Joseph
 (Sex) **M** (Date of Birth) **01 Jan. 1959** (Age) **35** (Place of Birth) **ONTARIO** (Interpreter) (Local Crim. No.) **14-567** (CR2) **ATTACHED**
 (Address, City, Postal Code) (Phone No.)
123 MAIN STREET, LONDON, ONTARIO, N5Y 1S1 **(519) 654-1234**
 (Height) **183** (Weight) **88** (Hair) **BRN** (Eyes) **BLU** (Race) **w** (Caution) **Viol**
 (Marks) **■ YOTEXR= TATTOOED ON RIGHT FOREARM** (Driver's Licence) **D1468-35345-90101** (FPS) **D14053**
 (Occupation) **LABOURER** (Employed By) **SMITH CONSTRUCTION COMPANY** (Marital Status) **SINGLE**
 (Fingerprinted) **Y** (Fingerprint Date): **01 Jan. 1994** (Fingerprint Time): **08:30-16:30**

OFFENCE

CC 253(a) IMPAIRED OPERATION/MOTOR VEHICLE/ALCOHOL
 (Offence Time) **01:30** (Offence Date) **01 Jan. 1994** (Damage) (Stolen) (Recovered)
 (Victim Injury) (Victim Age) (Civilian Witnesses)

(co-Accused/Joint With):

DRIVING OFFENCE

(Vehicle Description, Make, Model, Colour, Licence Plate, Pmv., Year)
BLUE FORD 2-DOOR MUSTANG, DJJ 148, ONT, 1994
 (Vehicle Owner) **SAME AS ACCUSED** (Accused Driver's Licence) **D1468-35345-90101** (Prov. Issued) **OUT**
 (Accident) (Total Damage)
NOT APPLICABLE
 (Victim Injury) (Victim Age)

BREATHALYZER

(Time Arrested) **01:40** (Time/Reading 1) **02:05 140mg per 100ml blood** (Time/Reading 2) **02:25 140mg per 100ml blood**

Defence:	crown:	Justice:
Procedure:	Summary: <input type="checkbox"/> Indictable <input type="checkbox"/>	Election: <input type="checkbox"/> 11 Inv. Officer: JOSEPH, SCHLOTZ 456 U.D. 1-C

Next Action												Notes	
YYYY/MM/DD	I/CREC	UT	BW	SC	PLEA	TBA	CT	TBW	PH	T	F	S	
21 Jan 94								m	m				

CHARGE WORDING

On or about the 1st day of January in the year 1994 at the City of London in the
maid region did, while his ability to operate a motor vehicle was impaired by
● Alcohol operate a motor vehicle, contrary to Section 253 clause (a) of the
Criminal Code of Canada.

• PROVINCIA LOFFEN CE ASSO CIATED

ADDITIONAL OFFICERS

JOHN ALEXANDER 551 IDENT

Pleads: _____

Location: _____ Date: _____ Code: _____

Disposition: _____

CHARGE SUMMARY

On January 1, 1994 at about 01:30 hours, the accused was westbound on
Dundas Street near Highbury Avenue, being followed by the witness Mary Jane
Smith. The investigating officer was eastbound on Dundas Street near
Highbury Avenue. The witness, Mary Jane Smith, attracted his attention
by flashing her headlights and pointing to the accused's vehicle in front of
her. The officer made a "U" turn and stopped the accused. The witness also
stopped and advised the officer he suspected the accused was impaired as he
was weaving all over the road while driving. The officer spoke with the
accused and detected a strong odour of intoxicant on the accused's breath.
His speech was slurred and his eyes were bloodshot. The officer had the
accused perform a "heel to toe" test and a "finger to nose" test, both of
which he failed. The officer formed the opinion the accused's ability to
operate a motor vehicle was impaired by alcohol. The officer arrested the
accused at 01:40 hours, read him his rights, and gave him a demand to supply
samples of his breath suitable for analysis. He was transported to the
police station and turned over to officer John Alexander, who performed the
Breathalyzer tests.

Date/Time Generated: 1994-06-15 08:48 - NIX